

# Acta Mechanica

2005

## Contents

<b>Addessi, D., Lacarbonara, W., Paolone, A.</b> Free in-plane vibrations of highly buckled beams carrying a lumped mass. ....	180, 133 – 156
<b>Abed, F. H., Voyiadjis, G. Z.</b> A consistent modified Zerilli-Armstrong flow stress model for BCC and FCC metals for elevated temperatures. ....	175, 1 – 18
<b>Abid, M., Siddique, M.</b> Finite-element simulation of tack welds in girth welding of a pipe-flange joint. ....	178, 53 – 64
<b>Atify, A. A., Aboeldahab, E. M., Mohamed, E. S.</b> Similarity analysis in magnetohydrodynamics: Hall effects on forced convective heat and mass transfer of non-Newtonian power law fluids past a semi-infinite vertical flat plate. ....	177, 71 – 87
<b>Agarwal, V. K., Carroll, M. M.</b> Admissibility conditions on principal strain invariants. ....	177, 89 – 96
<b>Aouadi, M.</b> Electromagneto-thermoelastic fundamental solutions in a two-dimensional problem for short time. ....	174, 223 – 240
<b>Argatov, I. I.</b> The pressure of a punch in the form of an elliptic paraboloid on a thin elastic layer. ....	180, 221 – 232
<b>Belevich, M.</b> Relationship between standard and causal fluid models. ....	180, 83 – 106
<b>Bera, N., Dey, J.</b> Linear instability of flow over a semi-infinite plate in a stream with uniform shear. ....	180, 245 – 250
<b>Berezovski, A., Maugin, G. A.</b> On the velocity of a moving phase boundary in solids. ....	179, 187 – 196
<b>Blyth, M. G., Pozrikidis, C.</b> Stagnation-point flow against a liquid film on a plane wall. ....	180, 203 – 219
<b>Boem, H. G., Jeong, K. M.</b> Crack growth in ferroelectric ceramics under electric loading. ....	177, 43 – 60
<b>Böhme, G., Pokriefke, G.</b> Nonlinear superposition of unidirectional and plane flows of viscoelastic Lodge fluids. ....	176, 197 – 211
<b>Braunbrück, A., Ravasoo, A.</b> Application of counterpropagating nonlinear waves to material characterization. ....	174, 51 – 61
<b>Brock, L. M.</b> Thermal relaxation effects in rapid sliding contact with friction. ....	176, 185 – 196
<b>Buryachenko, V. A., Roy, A.</b> Effective thermoelastic moduli and stress concentrator factors in nanocomposites. ....	177, 149 – 169
<b>Chakraborti, A., Gupta, A. S., Das, B. K., Jana, R. N.</b> Hydromagnetic flow past a rotating porous plate in a conducting fluid rotating about a noncoincident parallel axis. ....	176, 107 – 119
<b>Challamel, N., Hjjaj, M.</b> Non-local behavior of plastic softening beams. ....	178, 125 – 146
<b>Chen, C.-K., Lin, D. T. W.</b> TIP4P potential for lid-driven cavity flow. ....	178, 223 – 237
<b>Chen, Y. Z., Lin, X. Y., Wang, Z. X.</b> Solution of periodic group crack problems by using the Fredholm integral equation approach. ....	178, 41 – 51
<b>Chen, C.-I., Chen, C.-K., Yang, Y.-T.</b> Nonlinear stability analysis of thin Newtonian film flowing down on the inner surface of a rotating vertical cylinder. ....	179, 227 – 248
<b>Chiou, M.-C., Wang, Y., Hutter, K.</b> Influence of obstacles on rapid granular flows. ....	175, 105 – 122
<b>Choi, S. B., Han, S. S., Han, Y. M.</b> Vibration control of a smart material based damper system considering temperature variation and time delay. ....	180, 73 – 82
<b>Choi, S. B., Han, Y. M.</b> Hysteretic behavior of a magnetorheological fluid: experimental identification. ....	180, 37 – 47
<b>Degan, G., Vasseur, P., Awanou, N. C.</b> Anisotropy effects on non-Darcy natural convection from concentrated heat sources in porous media. ....	179, 111 – 130
<b>Dong, Y.-H., Lu, X.-Y.</b> Direct numerical simulation of stably and unstably stratified turbulent open channel flows. ....	177, 115 – 136

<b>Dorfmann, A., Ogden, R. W.</b> Nonlinear electroelasticity. ....	174, 167 – 183
<b>Du, Q., Li, X.</b> Effect of gas stream swirls on the instability of viscous annular liquid jets. ....	176, 61 – 81
<b>Elbarbary, E. M. E., Elgazery, N. S.</b> Flow and heat transfer of a micropolar fluid in an axisymmetric stagnation flow on a cylinder with variable properties and suction (numerical study). ....	176, 213 – 229
<b>Elishakoff, I., Gentilini, C., Viola, E.</b> Three-dimensional analysis of an all-round clamped plate made of functionally graded materials. ....	180, 21 – 36
<b>Erdoğan, M. E., Imrak, C. E.</b> On the axial flow of an incompressible viscous fluid in a pipe with a porous boundary. ....	178, 187 – 197
<b>Ercengiz, A.</b> Oscillating two-phase flow in a prestressed thick elastic tube. ....	179, 169 – 185
<b>Fang, Q. H., Liu, Y. W., Jiang, C. P.</b> On the interaction between a screw dislocation and a circular coated inclusion with interfacial cracks. ....	180, 175 – 193
<b>Gao, Y., Wang, M. Z.</b> A refined beam theory based on the refined plate theory. ....	177, 191 – 197
<b>Ghosh, S., Niyogi, P.</b> Evaluation of non-oscillatory schemes based on LED principle for supersonic flow computations. ....	177, 29 – 41
<b>Govorukha, V., Kamlah, M.</b> Investigation of an interface crack with a contact zone in a piezoelectric bimaterial under limited permeable electric boundary conditions. ....	178, 85 – 99
<b>Gürleyük, S. S.</b> Vibration reduction in a step motor using optimal control time intervals and amplitudes. ....	177, 137 – 148
<b>Haddad, O. M., Al-Nimr, M. A., Abuzaid, M. M.</b> The effect of frequency of fluctuating driving force on basic gaseous micro-flows. ....	179, 249 – 259
<b>Hochrainer, M. J.</b> Tuned liquid column damper for structural control. ....	175, 57 – 76
<b>Huang, G.-Y., Wang, Y.-S., Yu, S.-W.</b> Stress concentration at a penny-shaped crack in a nonhomogeneous medium under torsion. ....	180, 107 – 115
<b>Hudspeth, R. T., Guenther, R. B., Fadel, S.</b> Chaotic analyses of weakly damped parametrically excited cross waves with surface tension. ....	175, 139 – 179
<b>Irschik, H., Pichler, U.</b> On eigenstrains without displacements. ....	178, 111 – 122
<b>Kirillov, O. N.</b> A theory of the destabilization paradox in non-conservative systems. ....	174, 145 – 166
<b>Kuhl, E., Steinmann, P.</b> A hyperelastodynamic ALE formulation based on referential, spatial and material settings of continuum mechanics. ....	174, 201 – 222
<b>Kulkarni, S. S., Mitrea, I., Mukherjee, S.</b> A weakly singular integral formulation for displacement prescribed problems of elasticity. ....	176, 27 – 44
<b>Kurashige, M., Sato, K., Imai, K.</b> Mandel and Cryer problems of fluid-saturated foams with negative Poisson's ratio. ....	175, 25 – 43
<b>Laura, P. A. A., Rossit, C. A., Maiz, S.</b> Comments on "Faber series method for two-dimensional problems of an arbitrarily shaped inclusion in piezoelectric materials" by C.-F. Gao and N. Noda (Acta Mech. 171, 1–13, August 2004). ....	176, 127 – 130
<b>Lazopoulos, K. A.</b> Stability of an elastic tensegrity structure. ....	179, 1 – 10
<b>Lenci, S., Callegari, M.</b> Simple analytical models for the J-lay problem. ....	178, 23 – 39
<b>Li, B., Chen, Y., Zhang, H. Q.</b> Soliton-like solutions and periodic form solutions for two variable-coefficient evolution equations using symbolic computation. ....	174, 77 – 89
<b>Li, D., Tang, G., Zhou, J., Lei, Y.</b> Buckling analysis of a plate with built-in rectangular delamination by strip distributed transfer function method. ....	176, 231 – 243
<b>Li, S., Sauer, R., Wand, G.</b> A circular inclusion in a finite domain I. The Dirichlet-Eshelby problem. ....	179, 67 – 90
<b>Li, X.-F., Yang, J. S., Jiang, Q.</b> Spatial dispersion of short surface acoustic waves in piezoelectric ceramics. ....	180, 11 – 20
<b>Librescu, L., Marzocca, P.</b> Advances in the linear/nonlinear control of aeroelastic structural systems. ....	178, 147 – 186
<b>Lindner-Silvester, T., Schneider, W.</b> The moving contact line with weak viscosity effects – an application and evaluation of Shikhmurzaev's model. ....	176, 245 – 258
<b>Livieri, P., Segala, F., Ascenzi, O.</b> Analytic evaluation of the difference between Oore-Burns and Irwin stress intensity factor for elliptical cracks. ....	176, 95 – 105
<b>Liu, J. X.</b> Comments and authors' reply on "Explicit expressions of eigenvalues and eigenvectors for transversely isotropic piezoelectric materials" by Z.-C. Ou and Y.-H. Chen (Acta Mech. 162, 213–219, 2003). ....	176, 121 – 126

<b>Liu, Y., Chen, Y.-H.</b> An analytical solution for a cracked piezoelectric plate according to the PKHS electric boundary condition. ....	180, 233 – 244
<b>Liu, Y. W., Fang, Q. H., Jiang, C. P.</b> Interaction between an edge dislocation and a circular inclusion with interfacial rigid lines. ....	180, 157 – 174
<b>Liu, Z. G., Wang, R., Ma, J. J.</b> Interaction of the mode-III antiplane shear crack with a circular inhomogeneity. ....	178, 101 – 109
<b>Lu, X.-Y., Yin, X.-Z.</b> Propulsive performance of a fish-like travelling wavy wall. ....	175, 197 – 215
<b>Luongo, A., Di Egidio, A., Paolone, A.</b> Qualitative analysis of classes of motion for multiresonant systems I. An algebraic method. ....	174, 91 – 107
<b>Luongo, A., Di Egidio, A., Paolone, A.</b> Qualitative analysis of classes of motion for multiresonant systems II. A geometrical method. ....	174, 109 – 124
<b>Maikap, T. K., Mahapatra, T. R., Niyogi, P., Ghosh, A. K.</b> Numerical investigation of laminar separated flow through a channel with symmetric double expansion. ....	179, 197 – 210
<b>Miladinova, S., Lebon, G.</b> Effects of nonuniform heating and thermocapillarity in evaporating films falling down an inclined plate. ....	174, 33 – 49
<b>Mizuno, M., Honda, Y.</b> Simplified analysis of steady-state crack growth of piezoelectric ceramics based on the continuum damage mechanics. ....	179, 157 – 168
<b>Ng, C.-O., Bai, Y.-C.</b> Dispersion in oscillatory Couette flow with sorptive boundaries. ....	178, 65 – 84
<b>Nicholson, D. W.</b> Iterative triangularization of updated finite element stiffness matrices. ....	174, 241 – 249
<b>Nicholson, D. W.</b> Stiff arc length constraint in nonlinear FEA. ....	175, 123 – 137
<b>Nyashin, Y., Lokhov, V., Ziegler, F.</b> Stress-free displacement control of structures. ....	175, 45 – 56
<b>Othman, M. I. A.</b> Effect of rotation and relaxation time on a thermal shock problem for a half-space in generalized thermo-viscoelasticity. ....	174, 129 – 143
<b>Papargyri-Beskou, S.</b> Finite-element analysis of an axisymmetric, thin-walled, nonlinear elastic pressurized torus. ....	178, 1 – 22
<b>Phani, A. S., Venkatraman, K.</b> Damping characteristics of electro-rheological fluid sandwich beams. ....	180, 195 – 201
<b>Potapenko, S.</b> Fundamental sequences of functions in the approximation of the solution to the mixed boundary-value problem in anti-plane Cosserat elasticity. ....	177, 61 – 69
<b>Qiao, Y.</b> A theoretical analysis on the dynamic cleavage cracking in a constant-K specimen. ....	175, 19 – 24
<b>Rohlf, K., D'Alessio, S. J. D.</b> Uniform shear flow past a circular cylinder. ....	178, 199 – 222
<b>Sarvestani, A. S.</b> Binary inclusion model for the overall elasticity of imperfectly bonded composites. ....	176, 153 – 167
<b>Sawaguchi, H., Kurashige, M.</b> Constant strain-rate compression test of a fluid-saturated poroelastic sample with positive or negative Poisson's ratio. ....	179, 145 – 156
<b>Scarpetta, E., Tibullo, V.</b> Wave penetration in elastic solids with periodic array of rectangular defects: oblique incidence. ....	174, 21 – 31
<b>Seddeek, A. M.</b> Finite-element method for the effects of chemical reaction, variable viscosity, thermophoresis and heat generation/absorption on a boundary-layer hydromagnetic flow with heat and mass transfer over a heat surface. ....	177, 1 – 18
<b>Seredyńska, M., Hanyga, A.</b> Nonlinear differential equations with fractional damping with applications to the 1dof and 2dof pendulum. ....	176, 169 – 183
<b>Siddiqui, A. M., Ahmed, M., Ghor, Q. K.</b> Homotopy analysis of Couette and Poiseuille flows for fourth grade fluids. ....	180, 117 – 132
<b>Stampouloulou, I. H., Theotokoglou, E. E., Panayotounakos, D. E.</b> Exact analytic solutions of the nonlinear partial differential equations governing rigid perfect plasticity problems. ....	174, 1 – 20
<b>Sun, J.-L., Zhou, Z.-G., Wang, B.</b> Dynamic behavior of a crack in a functionally graded piezoelectric strip bonded to two dissimilar half piezoelectric material planes. ....	176, 45 – 60
<b>Suzuki, T., Sasaki, T., Hirashima, K., Kimura, K.</b> Analyses of isotropic piezoelectric materials with multilayered elliptical inclusion under out-of-plane shear loadings. ....	179, 211 – 225

<b>Tashtoush, B., Duwairi, H. M.</b> Transient mixed convection with internal heat generation and oscillating plate temperature. ....	174, 185 – 199
<b>Tsay, Y.-L., Chang, T. S., Cheng, J. C.</b> Heat transfer enhancement of backward-facing step flow in a channel by using baffle installation on the channel wall. ....	174, 63 – 76
<b>Tsogas, V., Kalvouridis, T. J., Mavraganis, A. G.</b> Equilibrium states of a gyrostat satellite in an annular configuration of $N$ big bodies. ....	175, 181 – 195
<b>Tzeng, S.-C., Lin, C.-W., Huang, K. D.</b> Heat transfer enhancement of nanofluids in rotary blade coupling of four-wheel-drive vehicles. ....	179, 11 – 24
<b>Usha, R., Ravindran, R., Uma, B.</b> Dynamics of a thin film with temperature-dependent viscosity on a rotating disk. ....	179, 25 – 40
<b>Usha, R., Senthilkumar S., Tulapurkara, E. G.</b> Stability characteristics of suspension flow through wavy-walled channels. ....	176, 1 – 26
<b>Uyguroğlu, M., Demirel, H.</b> Kinematic analysis of bevel-gear trains using graphs. ....	177, 19 – 27
<b>Valanis, K. C., Panoskaltsis, V. P.</b> Material metric, connectivity and dislocations in continua. ....	175, 77 – 103
<b>Wang, C., Guo, W., Feng, Q.</b> Deflection and stability of membrane structures under electrostatic and Casimir forces in microelectromechanical systems. ....	180, 49 – 60
<b>Wang, G., Li, S., Sauer, R.</b> A circular inclusion in a finite domain II. The Neumann-Eshelby problem. ....	179, 91 – 110
<b>Wang, G. F., Schiavone, P., Ru, C.-Q.</b> Surface instability of a semi-infinite harmonic solid under van der Waals attraction. ....	180, 1 – 10
<b>Wang, X. D., Jiang, L. Y.</b> The effective electroelastic property of cracked piezoelectric media. ....	177, 97 – 113
<b>Wierschem, A., Lepski, C., Aksel, N.</b> Effect of long undulated bottoms on thin gravity-driven films. ....	179, 41 – 66
<b>Wu, B. S., Li, Z. G.</b> Reanalysis of structural modifications due to removal of degrees of freedom. ....	180, 61 – 71
<b>Xenos, M., Dimas, S., Kafoussias, N.</b> MHD compressible turbulent boundary-layer flow with adverse pressure gradient. ....	177, 171 – 190
<b>Xiao, H., Bruhns, O. T., Meyers, A.</b> Objective stress rates, path-dependence properties and non-integrability problems. ....	176, 135 – 151
<b>Yang, J. S., Zhou, H. G.</b> Propagation and amplification of gap waves between a piezoelectric half-space and a semiconductor film. ....	176, 83 – 93
<b>Yang, Y.-C., Lee, H.-L., Chang, W.-J.</b> An inverse problem in simultaneously estimating boundary moisture fluxes in a porous annular cylinder. ....	179, 131 – 144

